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ABSTRACT

Argumentation courses, which emphasize the theories of argumentation, and debate courses, which teach competitive debate, can effectively teach critical thinking, training students to see situations from a variety of perspectives and then to evaluate those perspectives for their relative merit. William G. Perry maps out nine stages by which college students move from uncritical acceptance of "Authority" to being independent critical thinkers. Debate lends itself to the development of stages One through Six, whereby students move closer to apprehending knowledge as relative and truth as subjective through the processes of defending opposite viewpoints and researching controversial topics. Argumentation is best suited for stages Six through Nine, as it examines how the student's point of view can best be supported through logic, reasoning, and evidence. For this purpose, Stephen Toulmin's Model of Argumentation provides a method for revealing the interrelatedness of arguments and suggesting the extensive reach of argumentation into students' decision-making lives. Fallacies of reasoning and tests of evidence provide two practical ways for exploring that decision-making process. (An outline of Perry's nine positions of development, and a diagram of Toulmin's Model of Argumentation are appended.) (MM)

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TAKING PERSPECTIVES:

TEACHING CRITICAL THINKING IN THE ARGUMENTATION COURSE

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SCA National Convention, Boston, November 8, 1987

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Perhaps one of my favorite novels is To Kill a Mockingbird, the story of a young girl who learns, for lack of a more elegant phrase, how to be a critical thinker. She acquires her education through a series of situations which illustrate the complexity and richness of the metaphor "perspective." She learns a black's sense of American justice as she sits in the "For Coloreds Only" section of a courtroom. She learns about courage watching an elderly invalid break a morphine habit. In the closing scene of the book, she learns about learning as she stands on the porch of the Radley place and sees her neighborhood "from an angle" she had never seen before. The ability to "see" a situation from a variety of perspectives, and then to evaluate those perspectives for their relative merit, is what allows one to think critically.

If we are to believe our college catalogues--that college teaches not about "facts" but how to think--then the teaching of critical thinking is one of our responsibilities as educators. I will argue in this paper that the argumentation and debate course can effectively and efficiently perform this task. As I examine the relationship of critical thinking to argumentation, and suggest ways of maximizing that relationship, the metaphor of "perspective" will never be far away. Nor, for that matter, will the metaphor of "taking" as one of active involvement. Perspectives, I will argue, do not come to one, they must instead be aggressively sought.

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I begin this inquiry with the relationship between critical thinking and "perspective"; the example of To Kill a Mockingbird is illustrative, but hardly exhaustive. William G. Perry, in his study of college students and their intellectual development, argues that critical thinking is primarily a matter of epistemological standards. The maturation of one's standards for judging what is "known" is in large measure responsible for one becoming a "critical thinker." Specifically, Perry maps out nine stages by which college students move from uncritical acceptance of Authority to independent, critical thinker. Like Piaget's stages of early childhood development, Perry finds that some students move more quickly than others; some stay in one stage longer and other stages shorter. Also like Piaget, he finds some students who do not move through the stages at all, staying at the first stage throughout college life. Still others move up only a stage or two, stopping then or even retreating. Significantly, however, Perry finds that most students follow the sequence of the stages one after the other.[1]

Perry's nine stages are defined by (1) one's epistemological standards, and (2) the adaption of those standards to everyday behavior (see appendix A). The beginning stage is one where the student sees all matters as right or wrong. Knowledge is either correct or incorrect, and Authority is the repository by which this knowledge is collected and passed on. Authority, however, begins to be questioned first in the particular and then in the general. That is, the student begins to see that all knowledge is not known, and that particular authorities may not even know all that is known. Still, these are perceived as temporary setbacks in the pursuit of knowledge, the fundamental means for judging knowledge is unchanged.

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[1] William G. Perry, Jr., Forms of Intellectual and Ethical Development in the College Years (New York: Holt, Rinehart and Winston, 1968).

A significant step occurs when the student begins to question Authority in general, and comes to see that there is legitimate, unresolvable uncertainty. The student begins to perceive knowledge as contextual, relative, and subjective. Knowledge is considered accurate if the perceiver believes it to be so. Then in Stage Six the student moves to an understanding that relativity and subjectivity cannot be absolute standards, that instead some form of what Perry calls "personal commitment" is necessary. Wayne C. Booth's Modern Dogma and the Rhetoric of Assent is an illustrative example of the movement from stages six through nine.[2] Of considerable interest to Booth is how one constructs a rhetoric of "assent" so as to avoid being mired in the depressing perplexity of "doubt." Booth essentially affirms Perry's Position Six when he writes that "we would be left floundering in conflicting nonsensical schemes if we accepted all the views that we can't really disprove."[3] Booth realizes that in order to live in this world we must accept some notions and reject others; the inability to positively, scientistically disprove (or prove) cannot be allowed to prevent acceptance or rejection. Perry's following three stages explore the ways in which this "personal commitment" is ascertained, or judged.

Perry's nine stages are very perspectival. The stages are defined by how one judges what one "sees." Implicitly, how one judges is affected by what one sees in particular. Although individual personality and background accounts for some of the student's development, Perry's study confirms that a college environment encourages that maturation. Significantly, students form new epistemic standards through their study of courses like chemistry, sociology and history, not through epistemology. The student "sees" different lecturers

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[2] Wayne C. Booth, Modern Dogma and the Rhetoric of Assent (Notre Dame, Ind.: U of Notre Dame P, 1974).

[3] Booth 106.

struggling for knowlege and understanding. The student "sees" the reaching for knowledge across disciplines. The student "sees" other students grappling with truth and understanding in the same manner. In his conclusion, Perry suggests that the environment can be made more or less conducive to intellectual development. Although Perry prescribes no specific courses, Argumentation and Debate theoretically--and practically--present themselves as conducive environments.

Although Argumentation and Debate are frequently one title, I am going to differentiate between them. By "Debate" I mean the course, or part of a course, which teaches competitive debate. Debate courses are those which instruct students in the rules and skills of debating. By "Argumentation" I mean those courses which emphasize the theories of argumentation. I separate them because I believe Debate encourages student development from stage one through six, while Argumentation is more closely applies to stages Six through Nine.

Debate: Stages One through Six

Stage One students perceive knowledge as a matter of right or wrong, and have difficulty understanding that their view could be in the minority. Those who agree partially are perceived to be in total agreement, those who disagree appear to the student to disagree entirely. Stages Two through Five move the student progressively closer to apprehending knowledge as relative and truth as subjective. Broadly, competitive debate taught in the classroom assists this intellectual maturation in two ways: it forces the student to alternately defend opposite points of view and it encourages comprehensive research on a

controversial topic.

Stages One through Three are gradations in dualistic thinking as the student moves towards an epistemology of relativism. In its purest form it is represented by the student who has accepted all Authority which has been handed down throughout youth and adolescence. It is characterized by an inability to even perceive that different viewpoints can have legitimacy.

> A salient characteristic of this structure . . . is its lack of any alternative or vantage point from which a person may observe it. Detachment is impossible, especially regarding one's own thought. A person cannot explicitly describe such an outlook while embedded in it./4/

A freshman in Perry's study marked "Disagree" to a survey item which said "There's nothing more annoying than a question that may have more than one answer." When later asked about his response, he explained, "I didn't think any question could have more than one answer--so why be annoyed?"[5]

Debate class can fairly easily aid students in moving away from such dualistic thinking. By requiring them to argue both sides of one topic they are forced to construct arguments which support an opposite point of view. Perry's stages of intellectual development affirm the educational technique pioneered by Protagoras, who instructed his students to speak first on behalf of one side of an issue and then to speak against their first speech.[6] In perspectival terms, he encouraged them to "see" an opponent's point of view.

In some debate classes students are allowed to debate only the side with which they agree. What that approach perhaps gains in enthusiasm and research, it loses in teaching critical thinking. Requiring the student to construct comprehensive, cogent briefs on behalf of another's point of view aids the

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[4] Perry 62.
[5] Perry 64.
[6] James J. Murphy, A Synoptic History of Classical Rhetoric (Davis, Calif.: Hermagoras, 1983) 8-9.

student in developing a respect for the pluralism of our society. Significantly, Perry identifies pluralism as the driving force within the university which inspires the movement from uncritical to critical thinker.

The Stage Two student perceives that diversity of opinion does exist, but considers it to be unwarranted confusion. The student still relies heavily upon authority figures, and sees the confusion primarily as one of not having identified the right authorities. In contrast, Stage Three thinkers begin doubting authority figures. Truth for them still exists, and authority figures are still "Those Who Know The Truth," but they begin to perceive that traditional authority figures are fallible and certainly not omniscient. The Stage Four thinker then reaches a qualitatively different level, believing that "Truth" is but little known while uncertainty is both prevalent and, indeed, even legitimate.

Traditional debate class encourages this development primarily through researching and evidencing. Inevitably, students discover considerable differences of reasoned, rational opinion on both sides of a controversial question. Although some areas of agreement occur, invariably some issues remain insoluble in the sense that a survey of "authoritative" opinion yields no clear consensus of opinion. The requirement that students research and evidence their arguments, and the subsequent discussion and debate about their research, assures that they will quickly discern the confusion present in the world. Things are not, they discover, as certain as teachers and the educational system tend to represent. The role here of informal discussion and debate should not be underestimated, as students can explore this confusion without the pressures or time constraints of formal debate, although the later public debate is a powerful motivator for this earlier informal discussion. In order to encourage informal discussion of research, propositions should be

decided quickly in the semester and early research encouraged. One method is to require a certain number of evidence cards be turned in fairly early in the semester, complete with tag lines.[7]

As the students research, classroom discussion should incorporate their findings and discoveries. Of particular importance should be the discussion of who is a good authority and who is not, and how and when those decisions can be made.

Given Perry's scheme of stages, it is not coincidental that the easiest methods to teach for indicting evidence are those which challenge the source's authority or bias. The earliest of Perry's stages are heavily concerned with authorities and the confusion amongst them. Questioning the credentials and biases of the source, however, is only "easy" once a student has reached the stage of thinking where Authority can be questioned. One of my more interesting--and lengthy--discussions with a debate student concerned the Supreme Court. I spent a considerable amount of time convincing him that Supreme Court decisions were acceptable sources of evidence for what the interpretation of the Constitution ought to be, although not as conclusive as he believed regarding what the law ought to be. He was making the common error that because he could show something to be unconstitutional, no debate could occur as to its value. The point is a difficult one to teach: that the Supreme Court is a weighty--but not final--authority even on constitutionality (they might be overturned later, yet the Constitution has not changed), or that they

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[7] I personally find tag lines a critical element for debate class researching. Too frequently I find that students can not accurately sum up the argument contained within the evidence that they themselves have cited. I suspect one major reason for this is that many of them are within the first three stages of development. The accurate identification of an argument often requires one to see the evidence not from their own perspective, but from the perspective of the person whom they are quoting.

are not the ultimate arbiters on social policy, although their opinions may be respected and considered.[8]

Extensive evidencing also helps the student to observe that the confusion regarding "truth" is warranted, and not simply due to a lack of effort or intelligence. The world is truly complex, as the wide-ranging research on any socio-political debate proposition quickly confirms. The more the student researches the easier to move to Stage Four, where the student perceives that the uncertainty is not a temporary state of affairs. Indeed, uncertainty is perceived as the norm, not the exception, and Stage Four thinking gives rise to the cliche that "anyone has a right to their own opinion." The corollary debate cliche is that "you can find an expert to testify about anything." Stage Five simply moves that epistemology one step further with the discovery that all knowledge and values are relative.

Finally, peer judging helps promote the advancement to Stage Five thinking. In my class, every student writes a ballot for each debate, giving copies of each ballot to both sides. At first, the peer judging is simply a way to keep the audience actively involved in the debate and give the debaters a wide variety of feedback. It also tends to reinforce Stage Four and the belief that "everyone has the right to their own opinion." However, as decisions and competitive debate theory are discussed in class it becomes clear that, at least frequently, one side won and the other lost. One can, however, almost invariably count on some students voting for the losing side. What becomes clear to many students, even those writing the bad ballots, is the all important codicil to that age old truth: everyone has the right to their own

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[8] An interesting epilogue: the student was only convinced finally after his Constitutional Law professor affirmed my position. Thus, he was still at the stage which required one Authority (the professor) to overturn another (the Supreme Court) in his pantheon of Authorities.

opinion, but some opinions are better than others.

At Stage Six the student apprehends the necessity of making some personal commitment from among all the relative choices. If a student achieves Stage Five, this next step is undertaken relatively quickly.[9] Few students are unwilling to abrogate decision-making for long just because knowledge is relative. As Wayne Booth argues, most of us intuitively understand that some assumptions simply must be made if we are to function effectively.[10] One educational tool, however, can underscore the pervasiveness of relative knowledge and the necessity of personal commitment. Throughout the semester, but particularly as a method of summarizing, I apply debate concepts and terms to a wide assortment of political, social, and occupational arguments going on at the moment. I try to avoid overusing the "cataclysmic" topics used in competitive debate; enough of those examples are found in the propositions we use in the class and in the textbooks. Instead I opt for the mundane: the local elections, business news, collegiate controversies, even how one decides which fraternity or sorority to pledge. The point is to illustrate that the concepts and terms appropriate for the large issues are also very practical for everyday life. Uncertainty is no more common in "large" matters than small ones. Just as no one would think of avoiding the everyday choices because of the ambiguity present one should not abidicate responsibility for the larger national and societal decisions which must be made. Hopefully, too, critical thinking will be seen as applicable to everyday life as well.

Debate is also useful in that it discourages the three techniques by which students sometimes avoid the "natural" progression up the ladder of critical thinking.

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[9] Perry 212-213.
[10] Booth 107.

Temporizing: Here the student delays moving on to the next step. Debate class discourages this because the student is continually asked to grow intellectually. One cannot simply go to the second step by saying "OK, I'll debate both sides" but then ignore the confusion in the research. In order to succeed the student is asked to construct cogent arguments in support of their propositions, those that succeed the best are those further along in their stage of development.

Escape: The student avoids decisions and arguments, becomes alienated from the decision-making process. Debate class obviously does not permit this as an alternative. As long as the student stays enrolled--and active--in the course, escape is impossible.

Retreat: The student retreats to the absolutistic structures of Stages 1 through 3. Like temporizing, this is possible, but generally rare. The process of researching and arguing both sides is usually revealing for students as they begin to see that both sides of an issue have legitimate arguments and points of view.

Few debate class students, from my experience, will move completely through all six stages of development. Time and experience are needed in some measure for anybody to assimilate all the attitudes and perspectives needed to do so. Nor does debate class move quite as neatly from one stage to another as I have presented it here. I suggest, however, that the fit is more precise than might be imagined. Perry's argument that students need to perceive knowledge through a series of incremental steps should also prove highly instructive for working with individual students. It reminds us that different students begin the course with different cognitive skills and that these differences are <u>significant</u> in how well they can construct and refute

arguments. However, debate class should be influential in the student's intellectual development regardless of one's current stage of development. Critical thinking is obviously inseparable from good debating; perhaps less appreciated is that the relationship is so symmetrical.

Argumentation: Stages Six Through Nine

While Debate lends itself to the development of stages One through Six, Argumentation is best suited for stages Six through Nine as it examines how the student's point of view can best be supported through logic, reasoning, and evidence. Fittingly, many Argumentation books and courses begin with the Greeks' search for knowledge and their concomitant study of argumentation. I will pass over this aspect of Argumentation courses, however, in the belief that its relation to critical thinking is all too apparent. Instead, I will focus on three major areas of the Argumentation course and attempt to illustrate that they not only teach <u>about</u> critical thinking, but can also <u>teach</u> critical thinking. Specifically, the three areas are Toulmin's Model of Argumentation, the fallacies of reasoning, and evidentiary standards.

In Stage Six the student realizes that personal commitment must be made in order to escape the the dilemma of uncertainty. Stages Seven through Nine in a person's intellectual development involve the search for how one ascertains the correctness of personal commitment in a relative world. Toulmin's Model of Argumentation encourages this development in three primary ways: by equipping the student with language by which to examine personal commitment, by introducing the role of probability in reasoning, and by revealing what I call

the chain of argumentation.[11]

So much of the teaching of symbolic action seems to be accomplished through exacting use of symbols, and the teaching of argumentation is no different. Toulmin's Model, for example, provides students with specific language for discussing what they have largely done without conscious examination. Like examples used in Debate, the use of ordinary, mundane examples in Toulmin's Model proves useful for showing that the standards and concepts of "argumentation" are really the standards and concepts of "reasoning."[12] Students do not think of their own every day arguments in terms of claims and warrants, data and qualifiers, yet such are, of course, present in those arguments.

Toulmin's Model, although not always readily grasped by students, provides a mechanism for "slowing down" the reasoning process in order to better understand it. My students, for example, routinely have difficulty identifying the warrant which operates in any particular argument I give them, because humans simply do not argue by explicitly laying out all six of Toulmin's components. Implicitly, however, the warrants are there, and the only way to teach warrants is by making the student pick out the warrant in example after example. The effort is worth the candle, however, expecially in the case of the "warrant." The identification of the warrant is crucial for better critical thinking, because so much of our thinking, reasoning, and persuading is done with implied warrants. Jamieson and Campbell, for example, point out that media advertising relies heavily on implied premises--i.e., unstated

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[11] Stephen E. Toulmin, The Uses of Argument (Cambridge: The University Press, 1958).

[12] For example, Toulmin, Rieke and Janik define argumentation as the "whole activity" of examining claims through reasoning, and define reasoning as a way of "testing ideas critically." Stephen Toulmin, Richard Rieke, and Allan Janik, An Introduction to Reasoning (New York: Macmillan, 1979) 13, 9.

warrants. Advertising is effective because viewers so frequently accept those unstated warrants.[13] What holds true of advertising applies as well to other forms of persuasion. Only by understanding the role of warrant in argument, and by being able to identify which warrants work in a particular situation, can a student progress to choosing intelligently the reasons for personal commitment.

Along with warrant, two often unfamiliar but important concepts for students are the qualifier and rebuttal. One of Toulmin's most important contributions was to remind logicians of the role of probability in argument. Students, too, need to perceive that one way of making personal commitment in a relative world is through the use of probability. Lack of certainty can not be reason for refusing to act or believe, nor can it become an excuse for irrational action or belief. Ascertaining the degree of probability intelligently incorporates opposite points of view, thus giving uncertainty a legitimate role in the form of "rebuttal" while still making an ultimate decision possible. Probability, with all its variations such as maybe, likely and unlikely, possibly, hardly and usually, are all important qualifiers which allow intelligent discussion. Not only does the concept of probability provide a release from the despair of Stage Five thinking, acknowledging its critical role in the reasoning process can allow more careful use of it.

Finally, Toulmin's Model of Argumentation provides a unique method for revealing the interrelatedness of arguments. Once the students are familiar with the model, I begin exploring with them how we arrive at the various components. The easiest place to begin is the warrant, because it cannot stand by itself. The warrant, they understand pretty readily, is simply a claim

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[13] Kathleen Hall Jamieson and Karlyn Kohrs Campbell, The Interplay of Influence (Belmont, Calif.: Wadsworth, 1983) 144-152.

made in a different "model" (see appendix B). Once that inference is understood, two points become abundantly clear.

First, arguments are chained together. Toulmin's Model is excellent for isolating parts of an argument, but no single argument relies exclusively on just those six parts. Each of the primary six parts relies on other parts of other "models." This realization should help the student perceive the interrelatedness of thinking, as data, claims, warrants, and rebuttals have the habit of turning up in all sorts of different "arguments."

Second, because arguments are so interrelated, they should logically have some elements in common. This conclusion, of course, simply supports Toulmin's concept of "field independence." Standards of argument are field independent when they remain constant across various domains and situations. We may, for example, ignore heresay in a court of law but pay it great attention in our personal lives. Our standard for judging the accuracy of evidence by how close the reporter is to the "source" occupies a sliding scale; it is "field dependent." Independent of field, however, is the judgement that "closeness to source" is relevant as a standard of evidence. We may, for example, believe gossip repeated to us when it is second-hand, our credulity is stretched thin when we get it sixth-hand. That certain standards of argumentation can remain constant across arguments and arguers provides some solid ground by which to discover and ascertain the validity of one's personal commitment.

Thus, Toulmin's Model of Argumentation provides entree into better understanding the reasoning process, and with that understanding the student can realize that personal commitment need not be blindly made. Standards of argumentation and reasoning are available by which one can examine one's choices. While Toulmin's Model provides a more theoretical view of the process, a discussion of the fallacies of reasoning and evidentiary standards can illustrate how those "standards of argumentation" are used in practice.

I always enter the discussion of the fallacies of reasoning with some trepidation. Too frequently, the "fallacies" become litmus tests of correctness; if the argument appears to fit the "fallacy" it is judged to be in error. Students exhibit a strong desire to use the fallacies as absolute rules about right and wrong. In my mind, the discussion of the fallacies should yield insights into the reasoning process, and hence better critical thinking. To do so requires that the fallacies be understood (1) as situational in application, and (2) aberrations of the reasoning process.

The fallacy of post hoc ergo propter hoc is illustrative. A conclusion is judged fallacious when it depends entirely on post hoc ergo propter hoc reasoning while other arguments suggest the contrary to be true. The old joke about waving one's arms to keep the elephants away is a good example. However, the element of time is in fact critical to our conception of causality. If Effect B follows Cause A we can not prove by that fact alone that A is the cause of B; however, if Effect B precedes Cause A then we know that A is not the cause of B.[14] Thus, an argument dismissing another's reasoning as post hoc ergo propter hoc is incomplete as stated; at best it argues why one should suspend belief temporarily rather than positively advancing another belief.

An example of post hoc ergo propter hoc reasoning might prove illustrative. In one speech, a student cited data which revealed that incidences of teenage sex and teenage mothers had risen steadily since the 1950's. There was no sex education before the 1950's, he pronounced, so obviously sex education was the cause of the increases. In what was to him no doubt a revealing bit of sophistry I asked if there had been a space program

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[14] Some might argue that Effect B could happen in anticipation of Cause A. In that case, however, it is really the perception that Cause A will occur which causes Effect B. That perception will antedate Effect B, so the argument holds. The actual eventuality of Cause A is in fact immaterial to the process.

before the 1950's. I then wondered aloud whether he thought NASA responsible for the incresed sex and births among teens. The point of my question was identical to a debater's in cross-examination: to reveal the incompleteness of another's reasoning. My question did not, however, in any way disprove the claim that sex education was the cause of increased promiscuity and its results; I simply showed that his argument as stated was not enough to warrant belief. To fully advance an argument showing his reasoning not only incomplete but inaccurate I would need to cite various studies of sex education and its effects, the various causes of increased teen sex, or both.[15] I would have had to put forth positive reasons for believing otherwise. Further, for him to advance his argument claiming sex education as the cause of increased promiscuity, he would, at some juncture in the argument, have to demonstrate that sex education preceded promiscuity.

The fallacies of reasoning are processes of reasoning gone awry; i.e., situationally inappropriate. For example, the fallacies of composition and division are inaccurate uses of inductive and deductive reasoning. A suppressed major claim may be an entirely accurate presumption, but unless it is "unsuppressed" one may never know. Ad populum is probably a terrible reason for buying your sixteen-year-old a car, but it is not a bad system of governance. I like to end the discussion with ad hominem, which is so frequently cited as one hard and fast rule about fallacious reasoning. My argument is that the earlier discussion in the debate section about "good" and "bad" authorities--although situational--was a sophisticated use of ad hominem. To dismiss a John Bircher's testimony about the scurrilous United

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[15] Of course, one alternative would be to show that sex education did not start in the 1950's or that teenage sex and pregnancies have not gone up. In either case, however, his argument would be dismissed on evidentiary grounds, not because his reasoning was flawed or incomplete.

Nations is, to my mind, a sagacious course of action. It is also, however, an example of the process of ad hominem reasoning. In this sense, the fallacies of reasoning teach a lesson similar to Toulimin's Model. The "fallacies" must be understood in the context of the situation, but the processes by which people make judgements--both fallacious and valid--are consistent across "fields."

Like the fallacies of reasoning, evidentiary standards are frequently grasped by the student as a rock of certainty in the sea of confusion. To discuss, for example, the standard of recency invites the kind of reasoning so often put forward in competitive debate, with arguments stating conclusively that the most recent evidence is the best; e.g., the "my evidence post-dates your evidence" argument. When teaching evidentiary standards I emphasize the relative, situational nature of the standards. I encourage students to view them not as rules but as processes for judging evidence. The standard of recency is a good example. In some cases the more recent the evidence the better, because the later the evidence the more it incorporates late breaking developments. Of course, such a judgement presumes that an "all things being constant" condition exists. If two conflicting statements are being weighed, each must originate from a source with the same degree of expertise, each must have the same degree of external and internal consistency, each must have the same likelihood of bias, and so on. Then a standard of recency might prove decisive.

Additionally, I always note that the standard of recency gains importance relative to pertinent events which may have occurred after a particular statement was generated. Evidence about the electoral college has a less pressing need for recency than that regarding U.S.-U.S.S.R. relations. I recall one student speaking in 1984 who had very specific polling data about

the use of marijuana among college students at four-year state institutions. The class and I were all much impressed by the figures, until it came out that the poll was from 1968.

Recency as a test also illustrates the contexuality of the standards because sometimes in society we argue that the <u>older</u> the evidence is the better. We honor statements by Aristotle, Shakespeare, the ubiquitous Founding Fathers, and so on because those statements have "stood the test of time." Sometimes older evidence is judged better because it was generated more closely to the time period in question. For example, theologians rank the Gospels in order of those written closest to the time of Christ, and those rankings are considered one measure of veracity.

While the standard of recency illustrates the situational nature of the tests of evidence, it also reveals the consistency of those tests. While the test of recency is adapted to the particular situation, the permanent feature is the importance of the time of origination. When the data was generated is always a valid, and important, question. Although recency is one of the easiest examples revealing the relativity and consistency of evidentiary standards, all of them can teach the critical importance of the situation for employing them.

The tests of evidence, then, like Toulmin's Model and the fallacies, reveal standards which are fundamentally field independent. Humans adapt those standards, however, across fields, adjusting the basic ideas to the needs of the situation. Further, the tests of evidence do not and can not prove the accuracy of the data. Instead, they provide us with the means for judging the "probative force" of the evidence, a term I have found extremely useful in class. Probative force is the degree to which the evidence compels belief. Rather than viewing evidence in bipolar fashion, probative force invites

students to discuss it in terms of "strength." The tests of evidence are the means by which this probative force can be judged. Probative force is not only a useful concept for summing up what the tests of evidence do; it is also a means by which "probability" can be reintroduced into the argumentation class.

In Stage Six Perry describes a student who has realized that in a world of uncertainty "personal commitment" must be made. The remaining steps along the trek towards full intellectual development consist of discovering the means by which one can intelligently make that personal commitment. Argumentation class addresses itself to precisely those methods. Toulmin's Model describes the method in some detail, suggesting the extensive reach of argumentation into our decision-making lives. The fallacies of reasoning and tests of evidence provide two practical ways for exploring that decision-making process. Throughout the discussion of argumentation, care needs to be taken as to how "standards" are applied across situations. The student groping towards thinking critically is still struggling to understand the relationship of those things constant and those situational. The Argumentation class can be one forum for a sensitive discussion of just such material, and the concept of probability can prove highly instrumental in that discussion.

I entitled this paper "taking perspectives." The idea of perspective has been present throughout: from perceiving an opposite point of view to understanding how a process of reasoning may be used correctly in one instance but not in another. The act of perspective is not a passive one, however. The students need to actively "take" perspectives, whether by aggressively advancing a point of view in debate or by tenaciously uncovering the processes of one's own reasoning. The effective teacher of argumentation and debate, I would suggest, needs to be similarly active in revealing the nature of critical thinking.

Appendix A

William G. Perry, Jr. Forms of Intellectual and Ethical Development in the College Years. (New York: Holt, Rinehart and Winston, 1968) 9-10.

MAIN LINE OF DEVELOPMENT

Position 1: The student sees the world in polar terms of we-right-good vs. other-wrong-bad. Right Answers for everything exist in the Absolute, known to Authority[a] whose role is to mediate (teach) them. Knowledge and goodness are perceived as quantitative accretions of discrete rightnesses to be collected by hard work and obedience (paradigm: a spelling test).

Position 2: The student perceives diversity of opinion, and uncertainty, and accounts for them as unwarranted confusion in poorly qualified Authorities or as mere exercises set by Authority "so we can learn to find The Answer for ourselves."

Position 3: The student accepts diversity and uncertainty as legitimate but still *temporary* in areas where Authority "hasn't found The Answer yet." He supposes Authority grades him in these areas on "good expression" but remains puzzled as to standards.

Position 4: (*a*) The student perceives legitimate uncertainty (and therefore diversity of opinion) to be extensive and raises it to the status of an unstructured epistemological realm of its own in which "anyone has a right to his own opinion," a realm which he sets over against Authority's realm where right–wrong still prevails, or (*b*) the student discovers qualitative contextual relativistic reasoning as a special case of "what They want" within Authority's realm.

Position 5: The student perceives all knowledge and values (including authority's) as contextual and relativistic and subordinates dualistic right–wrong functions to the status of a special case, in context.

Position 6: The student apprehends the necessity of orienting himself in a relativistic world through some form of personal Commitment (as distinct from unquestioned or unconsidered commitment to simple belief in certainty).

Position 7: The student makes an initial Commitment in some area.

Position 8: The student experiences the implications of Commitment, and explores the subjective and stylistic issues of responsibility.

Position 9: The student experiences the affirmation of identity among multiple responsibilities and realizes Commitment as an ongoing, unfolding activity through which he expresses his life style.

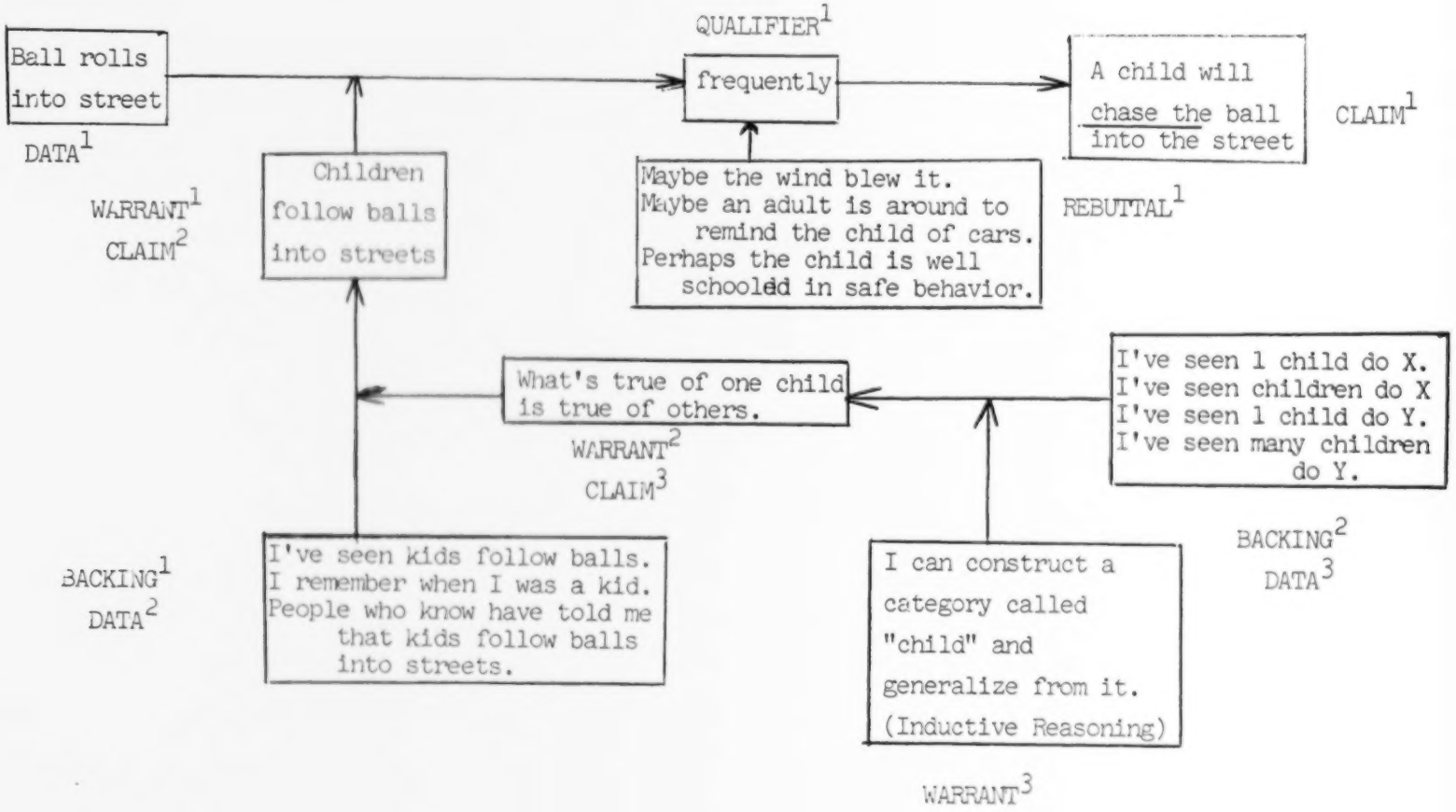
CONDITIONS OF DELAY, DEFLECTION, AND REGRESSION

Temporizing: The student delays in some Position for a year, exploring its implications or explicitly hesitating to take the next step.

Escape: The student exploits the opportunity for detachment offered by the structures of Positions 4 and 5 to deny responsibility through passive or opportunistic alienation.

Retreat: The student entrenches in the dualistic, absolutistic structures of Positions 2 or 3.

Appendix B: Toulmin Model of Argumentation


Ball rolls into street
DATA1
QUALIFIER1
frequently
A child will chase the ball into the street
CLAIM1
WARRANT1
CLAIM2
Children follow balls into streets
Maybe the wind blew it.
Maybe an adult is around to remind the child of cars.
Perhaps the child is well schooled in safe behavior.
REBUTTAL1
What's true of one child is true of others.
WARRANT2
CLAIM3
I've seen 1 child do X.
I've seen children do X
I've seen 1 child do Y.
I've seen many children do Y.
BACKING2
DATA3
BACKING1
DATA2
I've seen kids follow balls.
I remember when I was a kid.
People who know have told me that kids follow balls into streets.
I can construct a category called "child" and generalize from it. (Inductive Reasoning)
WARRANT3

NOTES:

1. Rebuttals for 2 and 3, qualifiers for 2 and 3, backing for 3 are not included, but could be added to the diagram.
2. Claim 1 could become the warrant or the data for another claim; e.g., "I should slow down."